

Brent Stephen Wise

Education

Post Graduate Certificate in Geostatistics (2011) Edith Cowan University, Western Australia

Doctor of Philosophy in Biological Science (2005) Murdoch University, Western Australia
Dissertation: Age and growth of selected species of Western Australian fishes

Honours degree in Biological Science (1991) Murdoch University, Western Australia
Dissertation: An investigation of the population dynamics of the short-tailed shearwater
Puffins tenuirostris utilising computer modelling.

Bachelor of Science (1988) Murdoch University, Western Australia
Degrees in Biological Science and Mathematics

Professional Experience

Acting Supervising Scientist 2013-2015

Department of Fisheries, Western Australia - Stock Assessment and Data Analysis Branch

I currently manage 30 staff with my primary role within the branch being the maintenance of a solid link between scientific analyses/assessments of Western Australia's commercial and recreational fisheries and the delivery of management outcomes. The branch is responsible for stock assessments, evaluation of alternative management strategies, collection and validation of data from both the commercial and recreational fisheries, running of numerous on- and off-site recreational fishing surveys, statistical analyses of biological and fisheries data, and the management of the Department's Library. My current research includes: assessments for all key commercial species in Western Australia; state-wide recreational surveys; and contributions to major initiatives including the integration of all licencing, compliance, and fishery data across the department. In this role I represent the Department and the State on steering committees for national stock status reporting and national recreational fishing surveys. I have an adjunct role with one of Western Australia's universities, and, through this, am involved in the supervision of a number of postgraduate students and continue to teach fishery assessment to undergraduate students.

Principle Research Scientist 2005-2012

Department of Fisheries, Western Australia - Stock Assessment and Data Analysis Branch

In this position, I was responsible for leading and managing the 10-15 staff within the Department of Fisheries, who designed, implemented and analysed recreational surveys, carried out stock assessments across all Western Australian fisheries and managed commercial and recreational catch and effort information. I was also responsible for leading interdisciplinary task forces and liaison with stakeholders, government agencies and universities on issues including research and management plans to recover stocks, development of state-wide recreational surveys and integration of research data across the Research Division of the Department. My role also involved the presentation of lectures in fishery assessment at Western Australia's universities.

Research Scientist 1998-2005

Australian Bureau of Rural Science, Canberra - Fisheries and Marine Sciences Program

My primary role was to review and undertake assessments of key species in Commonwealth fisheries including wildlife interacting with the fisheries. I was the chair and/or the stock assessment member on a number of Commonwealth assessment groups including the South East Trawl Fishery and Great Australian Bight Fishery. During this period, I was the Australian representative on international organisations including the Indian Ocean Tuna Commission and a member of the Commission for the Conservation of Southern Bluefin Tuna.

Research Scientist 1994-1998

Department of Fisheries Western Australian - Population Dynamic Section

My position involved carrying out scientific research on fishery population dynamics and modelling, from design through to the execution of research programmes. I analysed research data and published on a wide range of commercial and recreational fisheries including biological studies, catch and effort statistics, catch rate standardisations, stock assessments, creel surveys, hooking mortality experiments and tagging operations.

Research Assistant 1991-1993

Murdoch University/CSIRO/ACIAR

I worked on a joint project, in which I completed age and growth analyses on various baitfish species in the Indo-Pacific region, presenting results from these studies at annual co-ordination meetings in the region.

Publications

In review. Ryan K., Trinnie T., Jones R., Hart A., Wise B. Recreational fisheries data requirements for allocating catch shares. *Fisheries Management and Ecology*

In review. Mueller U., Wise B.S. Towards regionalised biodiversity indices for fisheries management. GeoENV2014: Geostatistics for Environmental Applications. *Spatial Statistics*

In press. Fletcher W.J., Kearney R.E., Wise B.S., Nash W.J. Large-scale expansion of no-take closures within the Great Barrier Reef has not enhanced fishery production. *Ecological Applications*.
<http://dx.doi.org/10.1890/14-1427.1>

2012. Wise B.S., Telfer C.F., Lai E.K.M., Hall N.G. and Jackson G. Long-term monitoring of boat-based recreational fishing in Shark Bay, Western Australia: providing scientific advice for sustainable management in a World Heritage Area. *Marine Fisheries Research*. 63: 1129-1141.

2012. Smallwood C.B., Pollock K.H., Wise B.S., Hall N.G. and. Gaughan D.J. Expanding roving-aerial surveys to include counts of recreational shore fishers from remotely operated cameras: benefits, limitations and cost-effectiveness. *North American Review of Fisheries Management*. 32: 1265-1276.

2012. Hartill B.W., Cryer M., Lyle J.M., Rees E.B., Ryan K.L., Steffe A.S., Taylor S.M., West. L., and Wise B.S. Scale- and context-dependent selection of recreational harvest estimation methods: the Australasian experience. *North American Journal of Fisheries Management* 32: 109-123

2011. Molony B.W., Newman S.J., Joll L., Lenanton R.C.J. and Wise B.S. Are Western Australian waters the least productive waters for finfish across two oceans? A review with a focus on finfish resources in the Kimberley region and North Coast Bioregion. *Journal of the Royal Society of Western Australia* 94: 323–332.

2011. Hobday A.J. et al. Ecological risk assessment for the effects of fishing. *Fisheries Research* 108: 372–384

2011. Marriott R.J., Wise B.S. and St John J. Historical changes in fishing efficiency in the west coast demersal scalefish fishery, Western Australia: implications for assessment and management. *ICES Journal of Marine Science*. ICES Journal of Marine Science 68: 76–86.

2007. Wise B.S and Fletcher W.J. Determination of cost effective techniques to monitor recreational catch and effort in Western Australian fisheries. Australian Society of Fish Biology. Cutting-edge technology in fish and fisheries science ASFB 2006 Workshop Proceedings 177-186.

2005. Baker G.B. and Wise B.S. The impact of pelagic longline fishing on the Flesh-footed Shearwater *Puffinus carneipes* in eastern Australia. *Conservation Biology*. 126: 306-316.

2004. Barratt D., Wise B.S., Bugg A. and Barry S. Mapping stock abundance indices for use in fisheries management and marine reserve planning. Second International Symposium on GIS/Spatial Analyses in Fishery and Aquatic Sciences (3-6 September, 2002, The University of Sussex, Brighton, UK).
2002. Ayvazian S.G., Wise B.S. and Young G. Short-term hooking mortality of tailor, (*Pomatomus saltatrix*) in Western Australia and its impact on yield per recruit. *Fisheries Research* 58: 241-248.
1999. Young G., Wise B.S. and Ayvazian S. A tagging study on tailor (*Pomatomus saltatrix*) in Western Australia waters: their movement, exploitation, growth and mortality. *Marine and Freshwater Research* 50: 633-642.
1996. Gill H.S., Wise B.S., Potter I.C. and Chaplin J.A. Dual spawning periods and resultant divergent patterns of growth in the estuarine goby *Pseudogobius olorum*. Temperature induced? *Marine Biology* 125: 453-466.
1994. Wise B.S., Potter I.C. and Wallace J.H. Growth, movements and diets of the terapontid *Amniataba caudavittata* (Richardson) in an Australian estuary. *Journal of Fish Biology* 45: 917-931.
1994. Potter I.C., Neira F.J., Wise B.S. and Wallace J.H. Reproductive biology and larval development of the terapontid *Amniataba caudavittata* (Richardson), including comparisons with the reproductive strategies of other estuarine teleosts in temperate Western Australia. *Journal of Fish Biology* 45: 57-74.
1993. Potter I.C. and Wise B.S. Length-frequency data for tuna baitfish (*Encrasicholina heterolobus* and *Spratelloides delicatulus*) and the cardinal fish *Apogon rueppellii*. Guidelines for employing computer packages to use length-frequency data to analyse age composition and growth of fish populations. In: Tuna Baitfish in Fiji and Solomon Islands. (Eds. Blaber S.J.M., Milton T.A. and Rawlinson N.J.F.) Canberra *ACIAR Proceedings* 52: 117-130.

Technical Reports

2014. Flood et al. (eds) Status of key Australian fish stocks reports 2014, Fisheries Research and Development Corporation, Canberra.
2014. Johnston. D., Chandrapavan. A., Wise, B., Caputi, N. Assessment of blue swimmer crab recruitment and breeding stock levels in the Peel-Harvey Estuary and status of the Mandurah to Bunbury Developing Crab Fishery. Fisheries Research Report 258.
2013. Ryan, K.L, Wise, B.S., Hall, N.G., Pollock, K.H., Sulin, E.H., Gaughan, D.J. An integrated system to survey boat-based recreational fishing in Western Australia 2011/12. Fisheries Research Report 249.
2013. Wise B.S. and Fletcher W.J. Determination and development of cost effective techniques to monitor recreational catch and effort in Western Australian demersal finfish fisheries. Final Report for FRDC Project 2005/034 and WAMSI Subproject 4.4.3.
2011. Little R.L., Thébaud O., Boschetti F., McDonald A.D., Marriott R., Wise B. and Lenanton R. An Evaluation of Management Strategies for Line Fishing in the Ningaloo Marine Park. Final Report for Ningaloo Reef Project 3.2.3 Biodiversity Assessment, Ecosystem Impacts of Human Usage and Management Strategy Evaluation.
2011. Smallwood C. B., Pollock K. H., Wise B.S., Hall N.G. and Gaughan D.J. Quantifying recreational fishing catch and effort: a pilot study of shore-based fishers in the Perth Metropolitan area. Final NRM Report Project No. 09040
2010. Hall N and Wise B.S. Development of an ecosystem approach to the monitoring and management of Western Australian fisheries. FRDC Final Report Project 2005/063

2009. Lenanton R., StJohn J., Keay I., Wakefield G. Jackson G., Wise B. and Gaughan D. Spatial scales of exploitation among populations of demersal scalefish: implications for management. Part 2: Stock structure and biology of two indicator species, West Australian dhufish (*Glaucoma hebraicum*) and pink snapper (*Pagrus auratus*), in the West Coast Bioregion. FRDC Final Report Project 2003-052.
2009. Lenanton R., Wise B., StJohn J., Keay I. and Gaughan D. Maximising survival of released undersize west coast reef fish. FRDC Final Report Project 2000-194.
2007. Wise B, StJohn J., and Lenanton R.. Spatial scales of exploitation among populations of demersal scalefish: implications for management. Part 1: Stock status of key indicator species for demersal scalefish fishery in the West Coast Bioregion. FRDC Final Report Project 2003-052.
2006. Langley A.D., Molony B., Bromhead D., Yokawa K., Wise B. Stock assessment of striped marlin (*Tetrapturus audax*) in the Southwest Pacific Ocean. WCPFC-SC2-2006/SA WP-6.
2006. Lawrence E., Wise B., Bromhead D., Hindmarsh S., Barry S., Bensley N. and Findlay J. Analyses of AFMA seabird mitigation trials – 2001 to 2004. FRRF Final Report
2005. Bromhead D., Ackerman J., Graham S., Wight M., Wise B. and Findlay J. Byproduct: Catch, Economics and Co-occurrence in Australia's Pelagic Longline Fisheries. FRRF Final Report
2004. Wise B.S. and Tilzey R. Assessment of deepwater flathead (*Neoplatycephalus conatus*) and Bight redfish (*Centroberyx gerrardi*) in the Great Australian Bight Trawl Fishery (GABTF). BRS, Canberra.
2004. Tilzey R. Wise B. Effectiveness of Seal Exclusion Devices (SEDs) in the South East Fishery. FRDC Final Report Project.
2003. Wise B. and Bromhead D. Chapter 8. Striped marlin abundance: Standardisation of CPUE. In: A review of striped marlin biology and fisheries relevant to Australia (Eds: Bromhead D., Pepperell J. and Findlay J.) FRRF Final Report.
2003. Wise B.S. A Review of the Conservation and Utilisation of Australian Marine Wildlife. FRRF Final Report.
2002. Wise B.S. Trends in Australia's Commonwealth fisheries: management and stock status. In: Fisheries Status Reports 2000-2001. Resource Assessments of Australian Commonwealth Fisheries. (Ed. Caton A.) Bureau of Rural Sciences. Canberra pages 17-61.
2002. Barratt D., Bugg A, Wise B. and Barry S. Mapping stock abundance indices for use in fisheries management and marine reserve planning. FRRF Final Report.
2002. Wise, B.S. and Thomson, R.B. Stock Assessment Report for Redfish, 2001. South East Fishery Assessment Group, AFMA, Canberra.
2002. Wise B., Bugg A, Barratt D., Barry S., Shono H., Nishida T. and Kalish J. Standardisation of Japanese longline catch rates for yellowfin tuna in the Indian Ocean using GAM analyses. IOTC WPTT-02-11.
2002. Baker B. and Wise B.S. The Impact of Pelagic Longline Fishing on the Flesh-footed Shearwater *Puffinus carneipes* in Eastern Australia. (Background paper, TAP workshop.)
2002. Wise, B.S. Further standardisation of redfish catch rates in the South East Trawl Fishery. (Background paper, RAG 13th meeting, Bermagui, 27 June 2002). BRS, Canberra.
2001. Wise, B.S. Preliminary standardisation of redfish catch rates in the South East Trawl Fishery. (Background paper, RAG 11th meeting, Sydney, 18 May 2001). BRS, Canberra.

2000. Tilzey R. and Wise B.S. Age structured modelling of Assessment of deepwater flathead (*Neoplatycephalus conatus*) and Bight redfish (*Centroberyx gerrardi*) in the Great Australian Bight Trawl Fishery GABTF. AFMA Final Report Project R99/0180.

2000. Ayvazian S.G., Jones G.K., Fairclough D., Potter I.C., Wise B.S. and Dimmlich W.F. Stock Assessment of Australian Herring. FRDC Final Report Project 96/105.

1999. Tilzey R. and Wise B.S. Fishery Assessment Report. The Great Australian Bight Trawl Fishery. AFMA Canberra.

1997. Ayvazian S.G, Lenanton R., Wise B.S., Steckis R. and Nowara G. Western Australian Salmon and Australian Herring Creel Survey. FRDC Final Report Project 93/79.

1997. Hall N. and Wise B. Development of Fisheries Population Dynamics Expertise in Western Australia. FRDC Final Report Project 93/214.02.